WHAT IS CLAIMED IS:

1. A surveillance system for an aircraft, comprising:

a first antenna comprising a four radiating element antenna configured for electrical coupling to:

a first air traffic control transponder;

a first traffic alert and collision avoidance system;

a second antenna comprising a single radiating element antenna configured for electrical coupling to a second air traffic control transponder;

a first mounting interface configured for coupling the first antenna to the aircraft;

a second mounting interface configured for coupling the second antenna to the aircraft;

wherein the mounting interface of the first antenna has a size and a shape corresponding to a size and shape of the mounting interface of the second antenna.

2. The surveillance system of Claim 1 wherein the first mounting interface is a first base plate and the second mounting interface is a second base plate.

3. The surveillance system of Claim 1 wherein the second antenna further comprises a plurality of non-functional elements configured for electrical coupling to a load.

4. The surveillance system of Claim 1 wherein the first antenna and the second antenna each are an L-band antenna.

5. The surveillance system of Claim 2 wherein the base plate of the first antenna has a generally rectangular shape.

6. The surveillance system of Claim 5 wherein the second antenna is configured to send a signal representative of at least one of the position and the altitude of the aircraft.

7. The surveillance system of Claim 6 wherein the base plate of the second antenna has a length of at least about 11 inches.

8. The surveillance system of Claim 7 wherein the base plate of the second antenna has a width of at least about 6 inches.

9. The surveillance system of Claim 8 wherein the second antenna comprises an upper antenna and a lower antenna.

10. A surveillance system for an aircraft comprising:

a first cabinet, comprising:

a first air traffic control transponder;

a first traffic alert and collision avoidance system;

a first terrain awareness and warning system;

a first weather detection and avoidance radar system;

wherein the first air traffic control transponder and the first traffic alert and collision avoidance system are configured for electrical coupling to a four radiating element antenna;

a second cabinet configured for housing:

a second air traffic control transponder;

a second traffic alert and collision avoidance system;

a second terrain awareness and warning system;

a second weather detection and avoidance radar system;

wherein the second cabinet includes at least the second air traffic control transponder and is configured for electrical coupling to a single radiating element antenna.

11. The surveillance system of Claim 10 wherein a mounting interface of the four radiating element antenna has a shape corresponding a mounting interface of the single radiating element antenna.

12. The surveillance system of Claim 11 wherein the mounting interface of the four radiating element antenna comprises a first base plate and the mounting interface of the single radiating element antenna comprises a second base plate.

13. The surveillance system of Claim 12 wherein the first cabinet and the second cabinet each comprise a configurable integrated surveillance system.

14. The surveillance system of Claim 13 further comprising the four radiating element antenna electrically coupled to the first cabinet.

15. The surveillance system of Claim 14 further comprising the single element radiating antenna electrically coupled to the second cabinet.

16. The surveillance system of Claim 15 wherein the four radiating element antenna is an L-band antenna and comprises four functional connectors and the single radiating element antenna is an L-band antenna and comprises a single functional connector.

17. A method of assembling an aircraft, comprising:

providing an airframe of the aircraft;

providing a surveillance system inside the airframe and configured for housing in a first cabinet:

a first air traffic control transponder;

a first traffic alert and collision avoidance system;

a first terrain awareness and warning system;

a first weather detection and avoidance radar system;

providing a second surveillance system inside the airframe and configured for housing in a second cabinet:

a second air traffic control transponder;

a second traffic alert and collision avoidance system;

a second terrain awareness and warning system;

a second weather detection and avoidance radar system;

providing a first aperture and a second aperture in the airframe;

installing a first base plate of a first antenna comprising a four radiating element antenna outside the airframe to cover the first aperture;

installing a second base plate of a second antenna comprising a single radiating element antenna outside the airframe to cover the second aperture;

wherein the first base plate has a size corresponding to a size of the second base plate.

18. The surveillance system of Claim 17 wherein installing the first base plate further comprises installing the first base plate having a shape corresponding to a shape of the second base plate.

19. The surveillance system of Claim 18 wherein providing the first aperture and the second aperture further comprises providing the first aperture having a size corresponding to a size of the second aperture.

20. The surveillance system of Claim 19 wherein providing the first aperture and the second aperture further comprises providing the first aperture having a shape corresponding to a shape of the second aperture.

21. The surveillance system of Claim 20 further comprising:

providing in the first cabinet:

the first air traffic control transponder;

the first traffic alert and collision avoidance system;

the first terrain awareness and warning system;

the first weather detection and avoidance radar system;

providing in the second cabinet: the second air traffic control transponder.

22. The surveillance system of Claim 21 further comprising electrically coupling the first storage unit to the first antenna and electrically coupling the second storage unit to the second antenna.

23. A surveillance system for an aircraft, comprising:

an antenna comprising:

a functional connector configured for electrical coupling to a functional load comprising an air traffic control transponder and a functional radiating element;

a plurality of non-functional connectors each configured for coupling to a non-functional load;

a base plate configured for coupling the antenna to the aircraft.

24. The surveillance system of Claim 23 further comprising a plurality of cables for connecting the functional connector of the antenna to the functional load and the plurality of non-functional connectors to the non-functional load.

25. The surveillance system of Claim 24 wherein the non-functional load comprises a dummy load.

26. The surveillance system of Claim 24 further comprising a second antenna comprising four functional connectors configured for coupling to at least one of an air traffic control transponder and a traffic alert and collision avoidance system and having a base plate configured for coupling the second antenna to the aircraft.

27. The surveillance system of Claim 26 wherein the base plate of the first antenna has a size and a shape corresponding to a size and shape of the base plate of the second antenna.

28. The surveillance system of Claim 27 wherein the first antenna and the second antenna are L-band antennas.

29. An aircraft having a surveillance system, comprising:

a first cabinet configured for housing:

a first air traffic control transponder;

a first traffic alert and collision avoidance system;

a first terrain awareness and warning system;

a first weather detection and avoidance radar system;

a second cabinet configured for housing:

a second air traffic control transponder;

a second traffic alert and collision avoidance system;

a second terrain awareness and warning system;

a second weather detection and avoidance radar system.

30. The aircraft of Claim 29 wherein the first cabinet has a size and a shape corresponding to a size and a shape of the second cabinet.

31. The aircraft of Claim 30 further comprising the first air traffic control transponder in the first cabinet and the second air traffic control transponder in the second cabinet.

32. The aircraft of Claim 31 further comprising the first traffic alert and collision avoidance system in the first cabinet.

33. The aircraft of Claim 32 wherein the first cabinet has a length of at least about 9 inches, a width of at least about 12 inches and a height of at least about 6 inches.